Remarks

The present amendment responds to the final Official Action dated November 20, 2001. That action rejected claims 1-14 under 35 U.S.C. 102(b) as anticipated by Goodwin, III, U.S. Patent No. 5,663,963 (Goodwin).

Claims 1, 6, and 11 have been amended to be more clear and distinct. Claims 1-14 are presently pending.

The Present Invention

An electronic price label according to the present invention performs periodic self-diagnosis for faults and reports detected faults through a visual display or audible tone, or alternatively to a central reporting system. The price label includes a processor which controls normal operation for the label, and which also runs a diagnostic program at periodic intervals. The processor, under control of the diagnostic program, exercises each component of the electronic price label and receives responses from the components. The processor then compares the responses received against fault signatures and reports as a failure any response matching a fault signature. The electronic price label performs self diagnosis, relieving the central reporting system from having to make status inquiries to the electronic price label and check the reported status against the expected status in order to determine whether or not the label is faulty. In one aspect of the present invention, during normal operation, the price label periodically issues a "normal operation" signal. If the central reporting system fails to detect the "normal operation" signal during a predetermined time interval, the label is presumed to be faulty and an investigation is performed. In another aspect of the present invention, the price label transmits an indication to the central reporting system to report a fault.

The Art Rejections

The Official Action rejected claims 1-14 under 35 U.S.C. 102(b) as anticipated by Goodwin on the ground that the electronic price label inherently has a memory for storing the price and a label for displaying the price information, as well as a processor. This ground of rejection is respectfully traversed. The cited reference does not anticipate and does not render obvious the claims as presently amended, as addressed in greater detail below.

Goodwin is entitled "Method For Detecting and Reporting Failures in EPL Systems." Goodwin describes an EPL system in which a host computer transmits a status request to an electronic price label utilizing a communication base station (CBS). The EPL then transmits a status reply signal in response to the received status message to the host computer utilizing the CBS. The return signal includes status information and the CBS passes the status information to a central computer, which compares the status information against expected status information to determine whether a fault has occurred.

In contrast to Goodwin, the present invention includes an EPL which may perform self-diagnostics without waiting for a status request or any other intervention from a central processor. If any faults are discovered during the self-diagnosis, the EPL may inform the central processor of the fault, or provide some other indication of fault, such as displaying an error message on the ESL's display or producing an audible sound. Claim 1, for example, claims an electronic price label comprising a processor "a processor adapted to control operation of the memory, the interface and the display, the processor being operative to perform diagnostic tests on one or more of the memory, the interface and the display and report a detected failure of one or more of the diagnostic tests, *said processor operative to perform said diagnostic tests and*

report the detected failure independent of a status request transmitted to the electronic price label from a central computer."

The present invention performs diagnosis within the electronic price label, detecting a fault without any need to exchange information with a CBS or central computer. The workload on the central computer, the communication base stations and the other central elements of the electronic price label system is reduced because the price label can diagnose and report a failure without receiving a status request at all and can report a failure. Moreover, in case of a less than total failure, for example, the electronic price label can issue a local alert without any need to communicate with the communication base station. For example, the alert may take the form of an audible beep to draw the attention of a repair person or other appropriate store personnel, and a display message identifying the nature of the failure, if the failure is of a nature which permits the display to continue operating.

See also claim 6, for example, which claims an electronic price label system including a plurality of electronic price labels, each of the labels "operative to communicate with the central processor, the labels being operative to display information based on information received from the central processor, each of the labels being operative to perform an internal self-diagnostic test *independent of a status request issued by the central processor, and provide an alert or indication reporting failure of the self-diagnostic test.*" As noted above with respect to claim 1, Goodwin does not teach electronic price labels each being operative to perform an internal self-diagnostic test independent of the central processor as presently claimed.

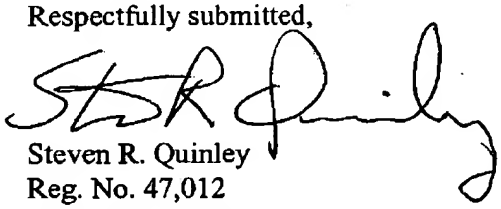
To sum up, nothing in the cited references teaches or makes obvious a system which solves the problems of alternative or promotional message verification addressed by the present

invention. The claims as presently amended are not taught, are not inherent, and are not obvious in light of the art relied upon.

Conclusion

All of the presently pending claims, as amended, appearing to define over the applied references, withdrawal of the present rejection and prompt allowance are requested.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the claims

Please amend claims 1, 6 and 11 as follows:

1. (Amended) A electronic price label, comprising;

memory for storing price information;

an interface for receiving the price information for storage;

a display for displaying the price information;

a processor adapted to control operation of the memory, the interface and the display, the processor being operative to perform diagnostic tests on one or more of the memory, the interface and the display and [direct the issuance of an alert reporting a] report a detected failure of one or more of the diagnostic tests, said processor operative to perform said diagnostic tests and report the detected failure independent of a status request transmitted to the electronic price label from a central computer.

6. (Twice amended) An electronic price label system for use in a retail establishment comprising:

a central processor for maintaining price and other information relating to a plurality of retail items; and

a plurality of labels operative to communicate with the central processor, the labels being operative to display information based on information received from the central processor, each of the labels being operative to perform an internal self-diagnostic test independent of a status request issued by the central processor, and provide an alert or indication reporting failure of the self-diagnostic test.

11. (Twice amended) A method of self-diagnosis of failures in an electronic price display system, comprising the steps of:

establishing communication between a central processor and a plurality of electronic price labels;

periodically performing a self-diagnostic test on each of the electronic price labels independent of a status request issued by the central processor; [and]

reporting each fault detected by the self-diagnostic test to the central processor if the detected fault does not preclude accurate reporting of the fault; and

providing an error indication if the detected fault precludes accurate reporting of the fault to the central processor.